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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,919	12/07/2005	R. Thomas Derryberry	873.0121.U(US)	2654

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EXAMINER	
MILLER, BRANDON J	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/559,919	DERRYBERRY ET AL.	
	Examiner	Art Unit	
	BRANDON J. MILLER	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *20-22 and 31-34* is/are allowed.

6)☒ Claim(s) *1-19, 23-30, 35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

I. The declaration filed on 12/03/2007 under 37 CFR 1.131 is sufficient to overcome the Whinnett et al. (US 2004/0219919 A1) reference.

Allowable Subject Matter

II. Claims 20-22 and 31-34 contain allowable subject matter. The following is an examiner's statement of reasons for allowance:

Claim 20 recites a method comprising steps as defined in the specification (pages 4-13) including, in pertinent part, as follows: receiving, from the base station in response, a power control bit, a data rate grant bit and an acknowledgment/non-acknowledgment indication, wherein there exist at least four R-SCH states and at least eight transitions between the R-SCH states, wherein the at least four R-SCH states include an R-SCH initialization state, an R-SCH autonomous state, an R-SCH scheduled state, and an R-SCH release state.

Applicant's independent claim 20 comprises a particular combination of elements, which is neither taught nor suggested by the prior art.

Claims 21-22 are allowable based on their dependence of independent claim 20.

Claim 31 recites a method comprising steps as defined in the specification (pages 4-13) including, in pertinent part, as follows: transmitting data from the mobile station to the base station over a reverse supplemental channel (R-SCH), wherein there exist at least four R-SCH states and at least eight transitions between the R-SCH states, wherein the at least four R-SCH

states include an R-SCH initialization state, an R-SCH autonomous state, an R-SCH scheduled state, and an R-SCH release state.

Applicant's independent claim 31 comprises a particular combination of elements, which is neither taught nor suggested by the prior art.

Claim 32 recites a mobile station with a structure as defined in the specification (pages 4-13) including, in pertinent part, as follows: said data processor being responsive to a reception of an acknowledgment indication from the base station for switching the mobile station to a scheduled mode of operation and for transmitting data from the mobile station to the base station over a reverse supplemental channel (R-SCH), wherein there exist at least four R-SCH states and at least eight transitions between the R-SCH states, wherein the at least four R-SCH states include an R-SCH initialization state, an R-SCH autonomous state, an R-SCH scheduled state, and an R-SCH release state.

Applicant's independent claim 32 comprises a particular combination of elements, which is neither taught nor suggested by the prior art.

Claim 33 recites a method comprising steps as defined in the specification (pages 4-13) including, in pertinent part, as follows: transmitting data packets from the mobile station transmitting data from the mobile station to the base station over a reverse supplemental channel (R-SCH), wherein there exist at least four R-SCH states and at least eight transitions between the R-SCH states, further comprising transmitting mobile station buffer activity bits and a data rate request bit, and receiving, from the base station in response, a power control bit, a data rate grant bit and an acknowledgment/non-acknowledgment indication, wherein the at least four R-SCH

states include an R-SCH initialization state, an R-SCH autonomous state, an R-SCH scheduled state, and an R-SCH release state.

Applicant's independent claim 33 comprises a particular combination of elements, which is neither taught nor suggested by the prior art.

Claim 34 recites a mobile station with a structure as defined in the specification (pages 4-13) including, in pertinent part, as follows: in the scheduled mode, the mobile station is configured to transmit a request by providing data transmission power information and selected data transmission buffer status information to the base station for granting a data transmission rate to the mobile station, wherein there exist at least four R-SCH states and at least eight transitions between the R-SCH states, wherein the at least four R-SCH states include an R-SCH initialization state, an R-SCH autonomous state, an R-SCH scheduled state, and an R-SCH release state.

Applicant's independent claim 34 comprises a particular combination of elements, which is neither taught nor suggested by the prior art.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

III. Claims 23-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "the MS" in lines 10, 13, and 16. There is insufficient antecedent basis for this limitation in the claim because the claim refers only to mobile station buffer status which not considered a "MS".

Claims 23 recites "wherein the method is a method for operating the MS with the BS for transmitting data packets from the mobile station to the base station over the R-SCH, wherein there exist at least four R-SCH states and at least eight transitions between the R-SCH states, where the at least four R-SCH states comprise a R-SCH initialization state, a R-SCH autonomous state, a R-SCH scheduled state, and a R-SCH release state" in lines 15-20. This language is unclear as to what method the stated "the method is a method" in line 15 is referring to. This limitation renders the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 24-30 are rejected based on their dependence of independent claim 23.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

IV. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

V. Claims 1-19 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadaba et al. (US 7,158,504 B2) in view of Gopalakrishnan et al. (US 6,836,666 B2).

Regarding claim 1 Kadaba teaches a method comprising when the mobile station is in an autonomous mode of operation, autonomously transmitting data from the mobile station to the base station on a reverse channel (see col. 4, lines 18-20 & 39-42). Kadaba teaches in response to receiving an acknowledgment indication from the base station, that comprises a reverse channel assignment message for the mobile station, switching the mobile station to a scheduled mode of operation (see col. 9, lines 10-14 and col. 14, lines 5-7 & 10-12). Kadaba teaches where, while in the scheduled mode, the mobile station provides data transmission buffer status information (see col. 9, lines 30-34). Kadaba teaches transmitting data from the mobile station on an assigned reverse channel (see col. 9, lines 52-54). Kadaba does not specifically teach the mobile station provides data transmission power information and data transmission buffer status

information as a request to transmit data. Gopalakrishnan teaches the mobile station provides data transmission power information and data transmission buffer status information as a request to transmit data (see col. 4, lines 35-39 & 44-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include the mobile station provides data transmission power information and data transmission buffer status information as a request to transmit data as recited in Gopalakrishnan because Kadaba discloses that the system in Gopalakrishnan teaches a scheduling method that can be implemented in the present invention (see col. 4, lines 22-27).

Regarding claim 2 Kadab and Gopalakrishnan teaches a device as recited in claim 1 except for a supplemental channel request message. Kadaba does teach transmitting data in a scheduling mode on a supplemental channel (see col. 9, lines 52-53). It would have been obvious to one of ordinary skill in the art at the time the invention as made to make the device adapt to include a supplemental channel request message because such a request is required to effectuate the transmitting data on the R_SCH taught in Kadada.

Regarding claim 3 Gopalakrishnan teaches a reverse access channel that comprises one of a Reverse Enhanced Access Channel and a reverse fundamental channel or a reverse dedicated channel (see col. 10, lines 41-45).

Regarding claim 4 Kadaba and Gopalakrishnan teach a device as recited in claim 2 except for where the acknowledgment indication comprises a supplemental channel assignment message. Kadaba does teach transmitting data in a scheduling mode on a supplemental channel (see col. 9, lines 52-53). It would have been obvious to one of ordinary skill in the art at the time the invention as made to make the device adapt to include where the acknowledgment indication

comprises a supplemental channel assignment message because such an acknowledgment is required to effectuate the transmitting data on the R_SCH taught in Kadada.

Regarding claim 5 Gopalakrishnan teaches where an acknowledge indication that comprises power control bits and data rate grant bits (see col. 3, lines 40-54).

Regarding claim 6 Gopalakrishnan teaches where the power control bits and data rate grant bits are received by the mobile station on a common power control channel (see col. 3, lines 40-54).

Regarding claim 7 Gopalakrishnan teaches transmitting mobile station buffer activity bits and a data rate request bit, and receiving, from the base station, a power control bit, a data rate grant bit and an acknowledgment/non-acknowledgment indication (see col. 3, lines 14-25 & 40-54).

Regarding claim 8 Gopalakrishnan teaches where the data rate request is transmitted as part of a dynamic buffer status report, and request one of an increase in data rate, a decrease in data rate, or no change in the data rate (col. 3, lines 19-23).

Regarding claim 9 Gopalakrishnan teaches where the data rate grant bit is time multiplexed by the base station with the power control bit, and indicates one of a grant of the requested data rate or denial of the requested data rate (see col. 3, lines 8-13 & 40-54).

Regarding claim 10 Kadaba teaches an apparatus comprising an RF transceiver for conducting bidirectional wireless communications with a base station (see col. 4, lines 18-20 & 39-42). Kadaba teaches a data processor operating under the control of a stored program for, when the apparatus is in an autonomous mode of operation, autonomously transmitting from the apparatus to the base station on a reverse channel (see col. 4, lines 18-20 & 39-42). Kadaba

teaches in response to receiving an acknowledgment indication from the base station, that comprises a reverse channel assignment message for the apparatus, switching the apparatus to a scheduled mode of operation (see col. 9, lines 10-14 and col. 14, lines 5-7 & 10-12). Kadaba teaches where, while in the scheduled mode, the apparatus provides data transmission buffer status information (see col. 9, lines 30-34). Kadaba teaches transmitting data from the apparatus on an assigned reverse channel (see col. 9, lines 52-54). Kadaba does not specifically teach the apparatus provides data transmission power information and data transmission buffer status information as a request to transmit data. Gopalakrishnan teaches the apparatus provides data transmission power information and data transmission buffer status information as a request to transmit data (see col. 4, lines 35-39 & 44-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include the apparatus provides data transmission power information and data transmission buffer status information as a request to transmit data as recited in Gopalakrishnan because Kadaba discloses that the system in Gopalakrishnan teaches a scheduling method that can be implemented in the present invention (see col. 4, lines 22-27).

Regarding claim 11 Kadaba and Gopalakrishnan teach a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 12 Kadaba and Gopalakrishnan teaches a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 13 Kadaba and Gopalakrishnan teach a device as recited in claim 4 and is rejected given the same reasoning as above.

Regarding claim 14 Kadaba and Gopalakrishnan teach a device as recited in claim 5 and is rejected given the same reasoning as above.

Regarding claim 15 Kadaba and Gopalakrishnan teach a device as recited in claim 6 and is rejected given the same reasoning as above.

Regarding claim 16 Kadaba and Gopalakrishnan teach a device as recited in claim 7 and is rejected given the same reasoning as above.

Regarding claim 17 Kadaba and Gopalakrishnan teach a device as recited in claim 8 and is rejected given the same reasoning as above.

Regarding claim 18 Kadaba and Gopalakrishnan teach a device as recited in claim 9 and is rejected given the same reasoning as above.

Regarding claim 19 Gopalakrishnan teaches where the mobile station and the base station communicate over a reverse synchronous code division, multiple access channel (see col. 10, lines 8-9).

Regarding claim 35 Kadaba teaches wherein the apparatus is a mobile station (see col. 5, lines 1-5).

Response to Arguments

VI. Applicant's arguments with respect to claims 1-19, 23-30, and 35 have been considered but are moot in view of the new ground(s) of rejection.

VII. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

VIII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON J. MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 22, 2008

GEORGE ENG
SUPERVISORY PATENT EXAMINER